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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,281	04/20/2004	Masanao Furukawa	D-1598	2638

7590 07/18/2007  
Kanesaka Berner and Partners Patent Agents, LLP  
Suite 310  
1700 Diagonal Road  
Alexandria, VA 22314

EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

MAIL DATE	DELIVERY MODE
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07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/827,281

Applicant(s)

FURUKAWA, MASANAO

Examiner

/Ramesh Krishnamurthy/

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

This office action is responsive to communications filed May 10, 2007.

**Claims 1 and 2 are pending.**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 10, 2007 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fennell et al. (US 5,670,707) in view of Shoji (US 5,952,556).

Fennell et al. discloses (Fig. 3, for example) a gas chromatograph with a fluid control assembly for controlling flow and/or pressure of gas, said fluid control assembly comprising a flow path, a control valve (70), a pressure sensor (65) connected to the flow path in a gas chromatograph for the purpose of ascertaining the pressure thereof of the gas flowing therethrough and a differential pressure sensor (72) for measuring the pressure drop across the flow resistance (73). Control means (71, 78, 80) is disclosed that is connected to the control valve, the differential pressure sensor and the pressure sensor for the purpose of controlling the flow and/or pressure through the flow path.

The patent to Fennell et al. discloses the claimed invention with the exception of explicitly disclosing a first pressure sensor between the flow resistance and the control valve.

Shoji discloses a flow control arrangement wherein a first pressure detecting means (21) is located upstream of a resistance (3) for the purpose of providing the inlet pressure to the control means.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the arrangement of Fennell et al. as set forth above, a pressure detecting means upstream of the flow resistance for the purpose of detecting a pressure thereat and allowing the pressure to be set to the value at the upstream portion of the flow resistance. It is to be noted that in the configuration shown in Fig. 3 of Fennell et al., the flow pressure in the sample introducing part (74) corresponds to that at the inlet thereof whereas in the combination of Fennell et al. and Shoji as set forth above, the pressure in the sample introducing part (74) would correspond to a higher value that would be prevailing at the inlet to the flow resistance. As disclosed in Fennell et al. (Col. 7, lines 16 – 19), the control means (71,78,80) has data that relates the pressure signal from the pressure sensor to the signal from the differential pressure sensor, a relationship that is expected to involve a range of values.

Regarding claim 2, it is noted that forming a differential between the differential pressure signal and the pressure measurement from the other pressure sensor is a functional limitation that the control means (71, 78, 80) is capable of (see for example, Col. 7, lines 1 – 19).

***Response to Arguments***

4. Applicant's arguments with respect to claim rejected above have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***/Ramesh Krishnamurthy/***

Ramesh Krishnamurthy  
Primary Examiner  
Art Unit 3753